



CLimate services supporting Public activities and Safety (CLIPS)

Hilppa Gregow, Andrea Vajda, Otto Hyvärinen, Terhi Laurila, and Juha A. Karhu

Finnish Meteorological Institute, Climate Service Centre, Helsinki, Finland (hilppa.gregow@fmi.fi)

Climate is changing the typical variation of weather. New solutions to raise awareness of the coming weeks' weather risks and opportunities are thus needed. The CLIPS project aims to develop user-relevant climate impact outlooks for the coming six weeks using the ECMWF extended range weather forecasts. The developed six week climate impact outlooks are first of their kind in Finland.

There are three main tasks in the CLIPS project. First, we wish to raise awareness of the public about the six week forecasting possibilities. Second, we invite users to pilot with us several new operational climate service products such as blue algae condition outlooks, number of beach weather days, weather impact on outdoor sports, storm exposure risk and warm clothing need. Third, we aim to develop a feedback and verification system with the users to enable continuous evaluation of the skill and usefulness of the new climate impact outlooks. The piloting round of CLIPS forecasts is performed in a Living Lab during a year period (1.6.2017-31.5.2018).

CLIPS project is expected to be of high relevance for several reasons. For instance, we will learn what type of forecast is feasible in Europe with specific focus in Finland within the six week range during the different seasons. We will learn what the users think about the usability of the forecasts developed and the same time also learn how post-processing works and which parameter-combinations are beneficial to use in the product design.

An overview of the project, how the user needs are implemented to the design, implementation and setting up the operational climate impact outlooks is presented. CLIPS benefits of the developed methods and surveyed needs of users originating from several past and ongoing projects such FP7 CORE-CLIMAX (climate services), FP7 RAIN (infrastructure risks), C3S Clim4Energy (energy production outlooks), TEKES Flexe (seasonal energy production potential), SEASON (forecasts for ice breaker management support), NORDRESS (safety of citizens) and ELASTINEN (proactive management to support adaptation). The Finnish Meteorological Institute collaborates with ECMWF in product development and with NASA on dissemination and outreach. The project is a forging ahead project funded by the Academy of Finland.